

REMARKS

In response to the final office action of November 29, 2006, the applicant asks that all claims be allowed in view of the amendment to the claims and the following remarks. This amendment is being filed concurrently with a Request for Continued Examination.

Claims 14, 16-18, 20, 22-25, 28-30, 32, 34-36 and 41 are currently pending, of which claims 14, 22, 25, 28 and 34 are independent. Claims 14, 22, 25, 28 and 34 have been amended, and claim 41 has been added. Support for these amendments and new claim may be found in the application at, for example, page 6, lines 17-21; page 12, line 16 to page 13, line 20; and FIG. 5. No new matter has been introduced.

In the action, claims 14, 16-18, 20, 22-25, 28-30, 32 and 34-36 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Motoyama (U.S. Patent No. 6,009,436) in view of Gajraj (U.S. Patent Application Publication No. 2002/0002566). The applicant respectfully traverses the rejections and requests reconsideration in view of the amendments to the claims and the following remarks.

Claims 14, 25, and 28.

As amended, claim 14 recites examining two document type definitions (DTDs) – a first DTD and a target DTD – to identify common patterns, where each of the common patterns is a substructure having a particular occurrence of an element and one or more of the sub-elements of the element. Claim 14 also recites using the common patterns identified by examining the first and target DTDs to map without user intervention elements and sub-elements of the first DTD in the first source document to recode a document according to the target DTD. Neither Motoyama nor Gajraj disclose these features.

As noted by the action, Motoyama does not disclose identifying patterns common between documents by identifying common elements between DTDs. See action at page 3, lines 1-2. For this feature, the action relies on Gajraj's disclosure of "finding elements in both DTD documents corresponding to a common base class." See action at page 3, lines 9-11 (citing Gajraj ¶¶ [0015-0017, 0024] and Figure 16, item 380). Gajraj's techniques, however, involve comparing the DTD documents to a common base class.

More particularly, Gajraj's transformation tool uses a mark-up language architecture to (1) determine "to what class of element an element in the first document belongs, from the first document type definition" and (2) determine "for that class, at least one corresponding element in the second document type definition." See Gajraj at ¶¶ [0015-0016], see also Fig. 1 (showing a meta-DTD 50 that is a base class for DTD A 60 and DTD B 70, document instance A 80 that is of the type defined in DTD A, and document instance B 90 that is of the type defined in DTD B) and Abstract. Gajraj discloses a transformation technology that, *inter alia*, determines an element class to which an element in first document belongs and determines a corresponding element in a second document type definition for the determined element class.

Gajraj provides an example transformation process in which "docA" is a document conforming to "DTD A" and is transformed using an architecture to "docB," which is a document conforming to "DTD B." See Gajraj at ¶ [0081]. In particular, Gajraj's process receives the DTD A, the DTD B and the architecture to which the DTDs A and B are compared. See Gajraj at ¶ [0082]. Gajraj then finds all elements in DTD A and the corresponding "architecture forms" of each element in DTD A. See Gajraj at ¶ [0083]. Next, Gajraj finds all elements in DTD B and the corresponding "architecture forms" of each element in DTD B. See Gajraj at ¶ [0084]. Gajraj then iteratively processes each element in docA and begins by reading an element in docA. See Gajraj at ¶ [0085]. Gajraj's process next uses the identified "architecture forms" that correspond to elements in DTD A to find corresponding elements in the DTD B. See Gajraj at ¶ [0086]. If more than one match is found, user input is obtained to resolve the conflict. See Gajraj at ¶ [0087]. Then Gajraj's process maps the element in docA to the element in the DTD B, and repeats the process for the remaining elements in docA. See Gajraj at ¶ [0088]. After all docA elements have been processed, Gajraj then outputs the transformed docB. See Gajraj at ¶ [0089]. As such, Gajraj compares the elements in DTD A to the architecture forms, which are then compared to the elements in DTD B.

As noted above, Gajraj uses an element class of an architecture to transform an element in a first document to a corresponding element in a second document type definition for the determined element class, and, hence, Gajraj's transformation is accomplished using a process that is different from that recited in amended claim 14. Gajraj does not examine two DTDs to

identify common patterns in the DTDs. Moreover, Gajraj does not disclose patterns having the claimed structure -- namely, each of the common patterns is a substructure having a particular occurrence of an element and one or more of the sub-elements of the element, as recited by amended claim 14. Hence, Gajraj cannot, and does not, describe or suggest examining the first and second document type definitions to identify common patterns in the document type definitions, where each of the common patterns is a substructure having a particular occurrence of an element and one or more of the sub-elements of the element.

In addition, Gajraj's Figure 16, item 380 states "RESOLVE CONFLICTS, AMBIGUITIES, GET USER INPUT IF NECESSARY, TO DETERMINE UNIQUE MAPPING OF EACH ELEMENT FROM DTD A TO ELEMENT FROM DTD B." Even if this disclosure of Gajraj can be said to inherently disclose or suggest comparing DTDs, see action at page 13, lines 4-7 (Response to Arguments), which the applicant vigorously disputes, Gajraj does not disclose or suggest, in Figure 16 or elsewhere, examining DTDs having a complex structure, such as the pattern structure recited in amended claim 14, to identify common patterns in the DTDs.

For at least these reasons, applicant respectfully requests reconsideration and withdrawal of the rejection of claim 14 and claims 16-18 and 20, which depend directly or indirectly from claim 14.

Additionally, with regard to claim 18, the action indicates that claim 18 is rejected with the same rationale as the rejection of claim 14. See action at page 5, lines 6-7. As noted above with regard to claim 14, Gajraj does not disclose or suggest examining DTDs having a complex structure to identify common patterns in the DTDs. Moreover, Gajraj does not disclose or suggest performing pattern matching between structures defined by the first document type definition and structures defined by the second document type definition performing pattern matching, as recited by claim 18. Instead, Gajraj uses an element class of an architecture to transform an element in a first document to a corresponding element in a second document type definition for the determined element class. Gajraj's transformation process does not disclose or suggest pattern matching between structures defined by the DTDs.

For at least this additional reason, applicant respectfully requests reconsideration and withdrawal of the rejection of claim 18.

Corresponding features of claim 14 are recited in independent claims 25 and 28. These features are recited in independent claim 28 in this way "a computer processor configured by a mapping program to identify patterns common to the source document and the set of source documents by examining the first document type definition and the target document type definition to identify common patterns in the document type definitions, each of the common patterns being a substructure having a particular occurrence of an element and one or more of the sub-elements of the element."

For the reasons noted above with respect to independent claim 14, applicant respectfully requests reconsideration and withdrawal of the rejection of claims 25 and 28, and their respective dependent claims.

Claims 22 and 34.

Independent claims 22 and 34 each are directed to converting the format of a source document to the format of a set of source documents. Claims 22 and 34, as amended, each recite examining the first document type definition and the target document type definition to identify patterns common to the source document and the set of source documents, where each of the patterns is a substructure having a particular occurrence of an element and one or more of the sub-elements of the element. As noted above with respect to claim 14 and also as noted by the action with respect to claim 22, Motoyama does not disclose identifying patterns common within documents by identifying common elements between document DTDs, see action at page 6, lines 7-8, and the action again relies on Gajraj's disclosure of "finding elements in both DTD documents corresponding to a common base class" for this feature, see action at page 6, lines 9-12 (citing Gajraj ¶¶ [0015-0017, 0024 and Figure 16, item 380]).

As described above with respect to claim 14, Gajraj uses an element class to transform an element in a first document to a corresponding element in a second DTD for the determined element class, nor does Gajraj disclose identifying patterns having the claimed structure. Hence, Gajraj does not describe or suggest examining two DTDs to identify patterns common to the source document and the set of source documents, where each of the patterns is a substructure

having a particular occurrence of an element and one or more of the sub-elements of the element, as recited by claims 25 and 34.

For at least these reasons, applicant respectfully requests reconsideration and withdrawal of the rejection of claims 25 and 34, and their respective dependent claims.

New claim 41, which depends from claim 14, is allowable for at least the reasons noted above with respect to independent claim 14.

Conclusion

For at least the reasons noted above and the reasons presented in applicant's prior replies, applicant submits that all claims are in condition for allowance.

Applicant believes that all of the pending claims issues have been addressed in this reply and applicant's prior replies. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this reply should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this reply, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Pursuant to 37 CFR §1.136, applicant hereby petitions that the period for response to the action dated November 29, 2006, be extended for one month to and including March 29, 2007.

The fee in the amount of \$910.00 in payment for the for the Request for Continued Examination fee (\$790.00) and the Petition for Extension of Time fee (\$120.00) is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: March 29, 2007

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